UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/521,125	01/12/2005	Lu Tian	139369USPCT	6511

7590 02/24/2006

Alcatel
Intellectual Property Department
3400 W Plano Parkway
M S Legl2
Plano, TX 75075

EXAMINER	
AJIBADE AKONAI, OLUMIDE	
ART UNIT	**PAPER NUMBER**
2686	

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/521,125	TIAN ET AL.	
	Examiner	Art Unit	
	Olumide T. Ajibade-Akonai	2686	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 December 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-27* is/are pending in the application.

4a) Of the above claim(s) *1-15 and 21-24* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *16-20 and 25-27* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Allowable Subject Matter

1. Claim19 was inadvertently indicated as allowable subject matter on the PTO-326, however, this claim had clearly been rejected in the office action of November 12, 2005. Due to this inadvertent error the indicated allowable subject matter is being withdrawn and claim 19 is now rejected.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 16-19, and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nevo et al (6,320,873)** in view of **Holcman et al (20040072563)**.

Regarding **claims 16 and 25**, Nevo et al discloses a method and system for transferring GSM-based information between a GSM communications system and a GSM/CDMA compatible mobile device via a CDMA interface (MS 40 can receive and transmit data streams from GPRS 50 through BSS 32 and SGSN 52 and the Gm, Gb, and Gn interfaces using the CDMA and GSM communication protocols, see col. 7, lines 60-67, and col. 8, lines 1-3), the method and system comprising: establishing a CDMA channel between the mobile device (MS 40 communicates with GSM SGSN 52 over a CDMA air interface between MS 40 and BSS 32, see fig. 2A, col. 6, lines 12-18) and a switch (GSM SGSN 52, see col. 6, lines 13-18), wherein the switch is accessible to the

GSM network (data packets are transmitted from the SGSN 52 to the GGSN 54, see figs. 1 and 2B, col. 7, lines 19-23, 36-47) and adapted to send and receive both GSM and CDMA messages (MS 40 can receive and transmit data streams from GPRS 50 through BSS 32 and SGSN 52 and the Gm, Gb, and Gn interfaces using the CDMA and GSM communication protocols, see col. 7, lines 60-67, and col. 8, lines 1-3), and wherein the switch establishes the channel using a base station system application part and radio resource manager inherited from the CDMA interface (CDMA BSS 32 comprises a RLC layer that includes a MAC function for controlling access signaling for CDMA radio channels, see fig. 2A, col. 6, lines 40-59), receiving, via a mobility management agent (mobility management functions are supported by a GSM GPRS mobility management and session management protocol layer, see col. 6, lines 31-39) inherited by the switch from the GSM system GSM-based information from the GSM network (location update and routing area update are received by the mobility management and session management protocol layer, see col. 6, lines 31-39), inserting the information into a CDMA message, and transferring the CDMA message to the mobile device via the CDMA interface (TCP or UDP packets are encapsulated using GPRS tunneling protocol, and the encapsulated TCP or UDP packets are transmitted to the GGSN 54, and the same principle is applied to communication of data over CDMA air interface see col. 7, lines 43-47, 60-65).

Nevo et al fails to disclose wherein the CDMA message is an "ADDS DELIVER" message.

In the same field of endeavor, Holcman et al discloses wherein the CDMA

message is an "ADDS DELIVER" message (bi-directional communication between CDMA and GSM BSC and MSC is achieved by the use of ADD messages to pass end-to-end information between the network and the mobile station, see fig. 2, p.5, [0054], [0057]-[0058] and p.6, [0060]).

It would therefore have been obvious to one of ordinary skill in the art to combine the teaching Holcman et al into the system of Nevo et al for the benefit of providing a hybrid system without multiple SIM cards or authentication centers.

Regarding **claim 17**, as applied to claim 16, Nevo et al, as modified by Holcman discloses the claimed invention.

Nevo et al fails to disclose wherein establishing the CDMA channel occurs prior to authenticating the mobile device in the GSM network.

Holcman, however, further discloses wherein establishing the CDMA channel occurs prior to authenticating the mobile device in the GSM network (inherent, since in the asynchronous handoff off the GSM system, the GSM BSC sends a MAP handoff message using the ADDS operation to the CDMA MSC, and this leads to an authentication of the GSM data, thereby indicating that a CDMA channel using the ADDS message had already been set up prior to the authentication of the GSM data in order for the CDMA MSC to receive the GSM data from the GSM BSC, see p.6, [0064]).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Nevo et al and Holcman et al for the benefit of providing a hybrid mobile communication system without multiple SIM cards or authentication centers.

Regarding **claim 18**, as applied to claim 16, Nevo et al further discloses further comprising receiving CDMA information from the mobile device (LLC data packets are received by the SGSN 52 from MS 40, see col. 7, lines 36-38), and converting the CDMA information into GSM information for compatibility with the GSM network (SGSN translates the data packets into TCP or UDP packets which are then encapsulated and sent to the GGSN 54, see col. 7, lines 36-47).

Regarding **claim 19**, as applied to claim 16, Nevo et al discloses the claimed invention except wherein the CDMA message is an "ADDS DELIVER" message, and wherein inserting the GSM information into the CDMA message includes identifying a predetermined field in the "ADDS DELIVER" , wherein he predetermined field is used tom store the GSM information.

Holcman et al, however, further teaches wherein the CDMA message is an "ADDS DELIVER" message (see p.7, [0071]), and wherein inserting the GSM information into the CDMA message includes identifying a predetermined field in the "ADDS DELIVER", wherein he predetermined field is used tom store the GSM information (see p.6, [0065], [0069], p. 7, [0070]-[0071]).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Nevo et al and Holcman et al for the benefit of providing a hybrid mobile communication system without multiple SIM cards or authentication centers.

Regarding **claim 26**, as applied to claim 25, Nevo et al, as modified by Holcman discloses the claimed invention.

Nevo et al fails to disclose wherein the switch inserts the information into a predetermined field in the CDMA "ADDS DELIVER" message.

Holcman et al, however, further discloses wherein the switch inserts the information (inherent, since the ADDS operation transfers the RAND number to the MS and the SRES to the MSC, and also to send data between the mobile station and the network, see p.7, [0071]) into a predetermined field in the CDMA "ADDS DELIVER" message (ADDS User Part contains service-specific data, see p.7, [0071]).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Nevo et al and Holcman et al for the benefit of providing a hybrid mobile communication system without multiple SIM cards or authentication centers.

Regarding **claim 27**, as applied to claim 25, Nevo et al, as modified by Holcman discloses the claimed invention.

Nevo et al fails to disclose wherein the switch is further adapted for receiving CDMA "ADDS Delivery" messages from the base station system and extracting any information which may be compatible with the another telecommunication technology.

Holcman et al, however, further discloses wherein the switch (BSCg, see p.6, [0064]) is further adapted for receiving CDMA "ADDS Delivery" messages (ADDS message, see p.6, [0064]) from the base station system and extracting any information which may be compatible with the another telecommunication technology (inherent, since bi-directional communication between CDMA and GSM BSC and MSC is

achieved by the use of ADD messages to pass end-to-end information between the network and the mobile station, thereby requiring that the MSC or BSC of the GSM system recover or extract its information from the ADDS message, see fig. 2, p.5, [0054], [0057]-[0058] and p.6, [0060]-[0061]).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Nevo et al and Holcman et al for the benefit of providing a hybrid mobile communication system without multiple SIM cards or authentication centers.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Nevo et al (6,320,873)** in view of **Ramaswamy (6,480,717)**.

Regarding **claim 20**, as applied to claim 16, Nevo et al discloses the claimed invention except extracting the GSM information from the CDMA message, and processing the extracted GSM information.

In the same field of endeavor, Ramaswamy et al discloses extracting the GSM information from the CDMA message (mobile station 36 extracts one or more messages from the TOM protocol envelope, see col. 5, lines 23-28), and processing the extracted GSM information (mobile station 36 processes the extracted one or more messages, see col. 5, lines 27-28).

It would therefore have been obvious to one of ordinary skill in the art to further modify the combination of Nevo et al and Ramaswamy for the benefit of providing data transfer between a non-GSM mobile switching center and an SGSN.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Grilli et al (6,438,117) discloses a base station synchronization for handover in a hybrid GSM/CDMA network.

Nevo et al (6,813,256) discloses signaling data link for a GSM/CDMA air interface.

Keskitalo et al (5,920,553) discloses a data transmission method, base station equipment, and mobile station.

Durchmann et al (5,664,004) discloses support of multiplicity of radio interfaces over an interface between a base station system and a mobile switch.

Tsao discloses an efficient tunneling protocol for General Packet Radio Service.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Olumide T. Ajibade-Akonai whose telephone number is 571-272-6496. The examiner can normally be reached on M-F, 8.30p-5p.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

OA

CHARLES APPIAH
PRIMARY EXAMINER